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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,556	09/22/2003	William D. Bauman	89190.070803/DP310408	9985
22851	7590	11/29/2005	EXAMINER	
DELPHI TECHNOLOGIES, INC.			CHANG, CHING	
M/C 480-410-202			ART UNIT	
PO BOX 5052			PAPER NUMBER	
TROY, MI 48007			3748	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/667,556	Applicant(s) BAUMAN ET AL.	
	Examiner Ching Chang	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-13 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☒ Claim(s) 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the amendment filed on 04/11/2005. New claims 6-17 are added as requested.

Claim Objections

1. Claims 3, 5 are objected to because of the following informalities:

- " said pin housing " after " within " in claims 3 and 5 should be --a pin housing--.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Wenisch et al. US Patent 6,606,972).

Wenisch discloses a valve deactivation hydraulic valve lifter (1) for use in an internal combustion engine, comprising a pin housing sub-assembly (including 4, 10, 11a) including a plunger return spring (unnumbered, shown in Fig. 1) disposed in a well (unnumbered, shown in Fig. 1) in said pin housing sub-assembly wherein said well has a diameter D and wherein the non-compressed Length L of said plunger return spring is greater than said diameter D.

With regard to the section of 103(a) rejection, it is clearly shown in Fig. 1, the non-compressed length L of said plunger spring (unnumbered) is greater than the diameter of the said well (unnumbered).

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Persuade (US Patent 3,301,240).

Peresada discloses a plunger return spring (54) for use in a well (56) in an hydraulic valve lifter wherein said well has a diameter D and wherein the non-compressed length L of said plunger return spring is greater than said diameter D.

With regard to the section of 103(a) rejection, it is clearly shown in Figs. 1-2, the non-compressed length L of said plunger spring (54) is greater than the diameter of the said well (56).

6. ***Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Voorhies (US Patent 3,124,115).***

Voorhies discloses a method for assembling a pin housing sub-assembly for use in a valve deactivation hydraulic valve lifter, wherein said pin housing sub-assembly includes a pin housing (within 14), a plunger return spring (38), a plunger sub-assembly (21, 25, 26), a pushrod seat assembly (33, 34), an expansion ring (16), a first groove (20) formed in the pin housing, and a second annular groove (unnumbered as shown in Fig. 1 to retain 16) formed in the pin housing and positioned between the first annular groove and an open end of the pin housing, said method comprising: disposing the plunger return spring in a well (within 14, wherein 38 sitting on) in the pin housing; disposing the plunger sub-assembly against said spring (38); spacing the pushrod seat assembly apart from the plunger sub-assembly to provide a hydraulic chamber (23) therebetween within the pin housing; and disposing the expansion ring in the second annular groove thereby retaining the plunger return spring, the plunger sub-assembly, and the pushrod seat assembly within the pin housing to form the assembled pin housing sub-assembly.

7. ***Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Wenisch et al. (US Patent 6,606,972).***

Wenisch discloses a method for assembling a pin housing sub-assembly (4, 10, 11a) for use in a valve deactivation hydraulic valve lifter (1), wherein said pin housing sub-assembly includes a pin housing (4), a plunger return spring (unnumbered as shown in Figure), a plunger sub-assembly (7, and an unnumbered check valve shown in

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Figure), a pushrod seat assembly (6), an expansion ring (unnumbered, above 6, shown in Figure), a first groove (unnumbered as shown in Figure, around the unnumbered plunger return spring) formed in the pin housing, and a second annular groove (unnumbered as shown in Figure, to retain the unnumbered expansion ring above 6) formed in the pin housing and positioned between the first annular groove and an open end of the pin housing, said method comprising: disposing the plunger return spring in a well (unnumbered as shown in Figure, wherein the unnumbered plunger return spring sitting on) in the pin housing; disposing the plunger sub-assembly against said spring; spacing the pushrod seat assembly apart from the plunger sub-assembly to provide a hydraulic chamber (in 7) therebetween within the pin housing; and disposing the expansion ring in the second annular groove thereby retaining the plunger return spring, the plunger sub-assembly, and the pushrod seat assembly within the pin housing to form the assembled pin housing sub-assembly.

8. ***Claims 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenisch (as applied to claims 1, and 4 above) in view of Spath et al. (US Patent 6,497,207).***

Wenisch further discloses the said pin housing sub-assembly further comprises:
a) a plunger sub-assembly (7 and the unnumbered check valve shown in Figure) disposed against said spring; b) a pushrod seat assembly (6) spaced apart from said plunger sub-assembly to provide a hydraulic chamber (in 7) therebetween within a pin housing (4); c) an annular groove (unnumbered, adjacent to 6, as shown in Figure)

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formed in said pin housing; and d) an expansion ring (unnumbered, above 6, and shown in Figure) disposed in said annular groove.

Wenisch discloses the invention as recited above, however, fails to disclose the said expansion ring being used to lock a spring tower to the said pin housing.

The patent to Spath on the other hand, teaches that it is conventional in the deactivation hydraulic valve lifter art, to utilize a spring tower (26) to increase the valve actuation flexibility of a hydraulic valve lifter (10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the spring tower as taught by Spath in the Wenisch device, in order to have the said spring tower to be locked to the pin housing through the expansion ring, since the use thereof would provide an easier assembled and more flexible valve actuation device.

The applied Spath reference has a common inventor and a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and

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that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Allowable Subject Matter

9. Claims 6-13 are allowed.

10. Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed on 04/11/2005, with respect to the rejection(s) of claim(s) 1-5, have been fully considered and are persuasive. Therefore, the rejection mailed on 12/07/2004 has been withdrawn. However, upon further consideration, a new ground(s) of rejection to the aforementioned claims is made in view of Wenisch reference, etc., in this Office Action.


Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ching Chang whose telephone number is (571)272-4857. The examiner can normally be reached on M-Th, 7:00 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571)272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

A handwritten signature in cursive script, appearing to read "Ching Chang".

Ching Chang